

R E M A R K S

Reconsideration of this application, as amended, is respectfully requested.

THE CLAIMS

Independent claims 1, 13, 22 and 34 have been amended to clarify that a timing at which a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of the specified timing is measured. See, for example, Fig. 8.

In addition, claims 3 and 24 have each been amended to make a minor grammatical improvement.

No new matter has been added, and it is respectfully requested that the amendments be approved and entered.

THE PRIOR ART REJECTION

In the Advisory Action, the Examiner has maintained the rejection of claims 1, 4-9, 11, 12, 15, 16, 18, 20, 21, 25-30, 32, 33, 36, 38 and 39 under 35 USC 103 as being obvious in view of the combination of USP 6,462,838 ("Hirata et al") and USP 5,754,920 ("Tanaka et al"), and the Examiner has maintained the rejection of claims claims 2, 3, 10, 13, 14, 19, 22-24, 31, 34 and 35 under 35 USC 103 as being obvious in view of the combination of Hirata et al, Tanaka et al and USP 5,600,404

("Ando et al"), and further in view of well known principles in the image processing art ("Official Notice") or USP 6,898,381 ("Maebashi et al"). These rejections, however, are again respectfully traversed with respect to the claims as amended hereinabove.

Re: claims 1, 13, 22 and 34

According to the image forming apparatus and the gradation correction method of amended independent claims 1, 13, 22 and 34, a shift between: (i) a specified timing prescribed in advance as a timing at which a measurement of a head part of the gradation pattern is started, and (ii) a timing at which a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of the specified timing is measured, is detected as the shift of the measurement timing, based on the measured values measured at the fixed interval timing. In addition, as recited in amended independent claims 1, 13, 22 and 34, the detected shift of the measurement timing is corrected.

As recognized by the Examiner in the Advisory Action, Tanaka et al discloses at column 9, lines 44-48 that changes in detection values between the detection value at the first sampling point A_1 and the detection values at other sampling points are determined. However, it is respectfully submitted

that Tanaka et al does not disclose or suggest detecting a timing at which a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of the specified timing is measured.

That is, although Tanaka et al may disclose determining a difference of detection values between adjacent sampling points, Tanaka et al merely discloses obtaining an absolute value of the change in detection values between adjacent sampling points and comparing the absolute value to a predetermined first reference value. See column 9, lines 52-57 of Tanaka et al. And in any event, however, Tanaka et al clearly does not disclose detecting a timing at which a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of the specified timing is measured.

Therefore, it is respectfully submitted that even if all of Hirata et al, Tanaka et al and Ando et al were combinable in the manner suggested by the Examiner, the combination still does not disclose or suggest the correction of measurement timing of the present invention as recited in claims 1, 13, 22 and 34 whereby the shift of the measurement timing is detected by using the timing at which a measured value having a largest change of measured light quantity value between two adjacent sampling points in a vicinity of the specified timing is measured.

Re: claims 3, 14, 24 and 35

According to the image forming apparatus and the gradation correction method of independent claims 3, 14, 24 and 35, a shift between: (i) a specified timing prescribed in advance as a timing at which a measurement of a head part of the gradation pattern is started, and (ii) a timing at which a measured value near to an intermediate light quantity value of measured values in a vicinity of the specified timing is measured, is detected as the shift of the measurement timing, based on the measured values measured at the fixed interval timing. In addition, as recited in amended independent claims 3, 14, 24 and 35, the detected shift of the measurement timing is corrected.

That is, as recited in independent claims 3, 14, 24 and 35, correction of measurement timing is performed by detecting a shift of the measurement timing by using a timing at which a measured value that may or may not be an interpolated value and that is near to an intermediate light quantity value is measured, the intermediate value being an intermediate of measured values in a vicinity of a specified timing. See Fig. 11 of the present application.

Even if the Examiner's Official Notice of interpolation practices being well known in the art of image processing to use a set of known data points to achieve new, more accurate data points is taken into consideration, it is respectfully submitted

that the cited prior art (including the Official Notice), either separately or in combination, do not disclose or suggest the feature of the present invention as recited in independent claims 3, 14, 24 and 35 whereby a timing at which a measured value near to an intermediate light quantity value of measured values in a vicinity of the specified timing is measured.

That is, the Examiner's Official Notice merely relates to image processing interpolation practices of using known data points to achieve new, more accurate data points. And it is respectfully submitted that the Examiner's Official Notice does not disclose or suggest detecting a timing at which a measured value that may or may not be an interpolated value and that is near to an intermediate light quantity value of measured values is measured as according to the claimed present invention.

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In view of the foregoing, it is respectfully submitted that amended independent claims 1, 13, 22 and 34, independent claims 3, 14, 24 and 35, as well as claims 4-12 and 25-33 respectively depending therefrom, all patentably distinguish over the cited prior art references, taken singly or in any combination, under 35 USC 103.

Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,

/Douglas Holtz/

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